

What is claimed is:

1. A slitter blade assembly for cutting off a workpiece, comprising:

5 a drum-shaped rotary blade; and

a disk-shaped rotary blade;

10 said disk-shaped rotary blade having a cutting edge, a first beveled surface facing said drum-shaped rotary blade and progressively spaced from said drum-shaped rotary blade toward said cutting edge, and a second beveled surface facing the workpiece and progressively spaced from said cutting edge away from the workpiece.

15 2. A slitter blade assembly according to claim 1, wherein the distance CL of said first beveled surface up to said cutting edge along a severance plane perpendicular to a surface of the workpiece is set to a value which ranges from 40  $\mu\text{m}$  to 200  $\mu\text{m}$ , the angle  $\theta_6$  of said first beveled surface from said severance plane is set to a value which ranges from 0.8° to 14°, and the angle  $\theta_1$  of said second beveled surface from said severance plane is set to a value which ranges from 65° to 85°.

20 3. A slitter blade assembly according to claim 2, wherein said disk-shaped rotary blade has a first clearance surface contiguous to said first beveled surface, and the angle  $\theta_3$  of said first clearance surface from said severance

plane is set to a value which ranges from 2° to 5°.

4. A slitter blade assembly according to claim 2,  
wherein said disk-shaped rotary blade has a second clearance  
5 surface contiguous to said second beveled surface, and the  
angle  $\theta_2$  of said second clearance surface from said  
severance plane is set to a value which ranges from 20° to  
45°.

10 5. A slitter blade assembly according to claim 4,  
wherein said second beveled surface and said second  
clearance surface are joined to each other at a junction,  
and the distance L1 from said junction to said severance  
15 plane is set to a value which ranges from 0.2 mm to 0.8 mm.

20 6. A slitter blade assembly according to claim 1,  
wherein said cutting edge of the disk-shaped rotary blade  
has irregularities along a circumference of the disk-shaped  
rotary blade, said irregularities having an irregularity  
quantity G set to a value which ranges from 0.5  $\mu\text{m}$  to 5  $\mu\text{m}$ .

25 7. A slitter blade assembly according to claim 1,  
wherein said disk-shaped rotary blade and/or said drum-  
shaped rotary blade is made of a cemented carbide.

8. A slitter blade assembly for cutting off a  
workpiece, comprising:

a drum-shaped rotary blade; and

a disk-shaped rotary blade;

said drum-shaped rotary blade having a cutting edge and  
a third beveled surface facing said disk-shaped rotary blade  
and progressively spaced from said disk-shaped rotary blade  
toward said cutting edge.

9. A slitter blade assembly according to claim 8,  
wherein the distance HL of said third beveled surface up to  
said cutting edge along a severance plane perpendicular to a  
surface of the workpiece is set to a value which ranges from  
25  $\mu\text{m}$  to 500  $\mu\text{m}$ , and the angle  $\theta_5$  of said third beveled  
surface from said severance plane is set to a value which  
ranges from  $0.0^\circ$  to  $0.6^\circ$ .

10. A slitter blade assembly according to claim 9,  
wherein said drum-shaped rotary blade has a third clearance  
surface contiguous to said third beveled surface, and the  
angle  $\theta_4$  of said third clearance surface from said severance  
plane is set to a value which ranges from  $2^\circ$  to  $4^\circ$ .

11. A slitter blade assembly according to claim 8,  
wherein said disk-shaped rotary blade and/or said drum-  
shaped rotary blade is made of a cemented carbide.

12. A slitter blade assembly for cutting off a  
workpiece, comprising:

a drum-shaped rotary blade; and

a disk-shaped rotary blade;

said disk-shaped rotary blade having a cutting edge, a first beveled surface facing said drum-shaped rotary blade and progressively spaced from said drum-shaped rotary blade toward said cutting edge of the disk-shaped rotary blade, and a second beveled surface facing the workpiece and progressively spaced from said cutting edge of the disk-shaped rotary blade away from the workpiece;

said drum-shaped rotary blade having a cutting edge and a third beveled surface facing said disk-shaped rotary blade and progressively spaced from said disk-shaped rotary blade toward said cutting edge of the drum-shaped rotary blade.

13. A slitter blade assembly according to claim 12, wherein said disk-shaped rotary blade and/or said drum-shaped rotary blade is made of a cemented carbide.

14. A slitter blade assembly according to claim 12, wherein the distance CL of said first beveled surface up to said cutting edge along a severance plane perpendicular to a surface of the workpiece is set to a value which ranges from 40  $\mu\text{m}$  to 200  $\mu\text{m}$ , the angle  $\theta_6$  of said first beveled surface from said severance plane is set to a value which ranges from 0.8° to 14°, the angle  $\theta_1$  of said second beveled surface from said severance plane is set to a value which ranges from 65° to 85°, the distance HL of said third

beveled surface up to said cutting edge along a severance plane is set to a value which ranges from 25  $\mu\text{m}$  to 500  $\mu\text{m}$ , and the angle  $\theta_5$  of said third beveled surface from said severance plane is set to a value which ranges from  $0.0^\circ$  to  $0.6^\circ$ .

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